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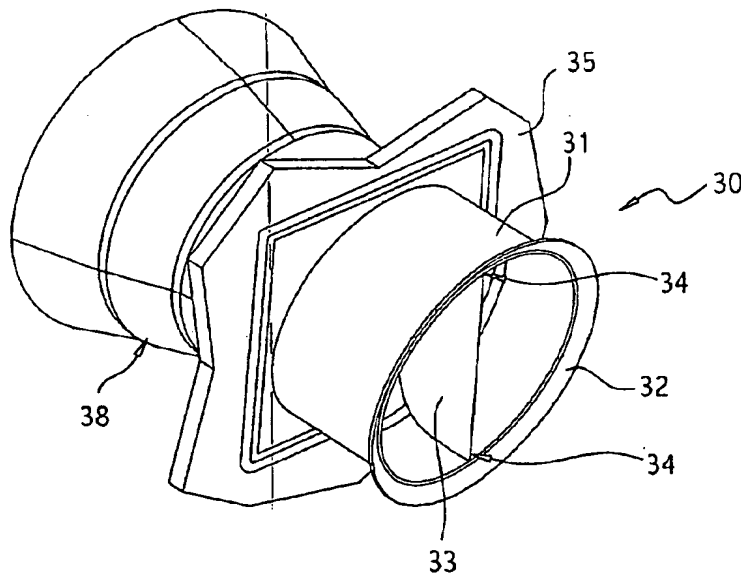
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(54) Title: VERTICAL DOOR FAN SHUTTER



(57) Abstract: A fan shutter having one end attachable to an exhaust fan and the opposite inlet end having a pair of vertical doors that are biased to close when the fan is off and to open by the force of vacuum when the fan is on. The use of vertical doors prevents the accumulation of dust and dirt on the doors. The vertical doors pivot horizontally in a housing that may have any desired shape, including a tubular shape with a bell mouth. The tubular bell mouth shutter design further provides improved air flow characteristics and decreased stress on the exhaust fan, compared to conventional fan shutters.

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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,277,658 A (GOETTL) 11 January 1994 (11.01.1994), see entire document.	1-23
A	US 4,649,808 A (WARD et al.) 17 March 1987 (17.03.1987), see entire document.	1-23
A	US 4,452,391 A (CHOW) 05 June 1984 (05.06.1984), see entire document.	1-23
A	US 3791279 A (HOLT et al.) 12 February 1974 (12.02.1974), see entire document.	1-23
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Derek S. Boles <i>James H. Allen</i> Telephone No. 571-272-3700 <i>Lee</i>